

CLAIMS

1. Conveying device for conveying goods, luggage, parcels or the like wherein the conveying device comprises a plurality of conveying elements, where each conveying
5 element comprises a chain box element in which at least one transport roller is rotatably fixed such that rollers arranged in adjacent conveying elements define the conveying device transport plane, and that chain box elements of adjacent conveying elements are interconnected in such a way that one conveying element may articulate in relation to adjacent conveying elements, and that at least some of the chain box ele-
10 ments in the conveying device comprise drive means directly engaging and rotating the transport rollers.
2. Conveying device according to claim 1 wherein each conveying element is provided with two transport rollers, one on each side of the chain box element, and that
15 the axles of the two transport rollers may be separate and independent or the transport rollers may share a common axle.
3. Conveying device according to claim 1 or 2 wherein each conveying element is provided with a support structure, and that said support structure is connected to the
20 chain box element at one end and at the opposite end is connected to the end of the axle of the transport roller opposite the chain box element, and that the support element optionally may be provided with support means, where the means may comprise wheels, studs, gliders, runners or the like.
- 25 4. Conveying device according to any preceding claim wherein the articulation joint connecting two adjacent conveying elements comprises a ball structure attached or integral with the chain box element at one end of the conveying element and gripping means in the shape of two ring members at the opposite end of the chain box element, said ring members arranged such that the ball structure of an adjacent conveying ele-
30 ment may be held between the two ring members.

- 5 5. Conveying device according to claim 4 wherein the relative articulation movement between two adjacent conveying elements is divided between two joints in each conveying elements, such that articulation in the transport plane and twisting between two adjacent conveying elements is provided by a first joint comprising the ball structures cooperation with the two ring members provided on an adjacent conveying elements, and that a second joint is provided in the chain box element for relative inclination, respectively declination, in relation to the intended transport direction.
- 10 6. Conveying device according to any preceding claim wherein the chain box element is hollow or at least an open passage is provided through the chain box element in the intended transport direction such that a through going passage is provided through substantially the entire conveying device allowing for wires, pipes and/or power cables to pass through the conveying element.
- 15 7. Conveying device according to any preceding claim wherein drive means are provided in all chain box elements, whereby all transport rollers are powered.
- 20 8. Conveying device according to any preceding claim wherein the drive means is chosen among electric motors, hydraulic motors, belt drives coupled to a motor which belt drive powers two or three adjacent boxes, gearwheels, one or more chains.
- 25 9. Conveying device according to any preceding claim wherein the transport rollers are configured as non-cylindrical rollers, conical rollers, or curved rollers, and that all the rollers may be identical or any combination of different shapes of rollers may be combined in the same conveying device.
- 30 10. Conveying device according to any preceding claim wherein the conveying device or particular elements thereof may be manufactured from one or more of the following material groups: plastics, reinforced plastics, aluminium, steel, stainless steel, ceramics, brass, rubber, latex, nylon, resin based composites.
11. Conveying device according to any preceding claim wherein the outer carrying surface of the transport rollers is continuous or discontinuous for example by the pro-

vision of ring sections separated by valleys, and that in the discontinuous configuration ring sections in transport rollers in one conveying element are off-set in relation to ring sections in transport rollers in adjacent conveying elements.

- 5 12. Use of conveying device according to any of claims 1 to 11 for handling goods, luggage, parcels and the like in airplanes cargo bays, trains, ships, trucks or other vehicles, storage facilities, warehouses, production lines and the like.